

REMARKS

The Office Action dated March 27, 2007 has been reviewed. Claims 1 and 6-9 have been amended. Claims 1-14 are pending and are at issue.

Claim Rejections under 35 USC § 112

The Office Action states that the disclosure of the present application and the parent application must be sufficient to comply with the requirements of the first paragraph of 35 U.S.C. 112 and cites *Transco Products, Inc. v. Performance Contracting, Inc.*, 38 F.3d 551, 32 USPQ2d 1077 (Fed. Cir. 1994) for support. The *Transco* decision was made before the option of filing provisional applications was available to inventors (June 8, 1995). *Transco* stands for the proposition that an application is entitled to the benefit of an earlier application only as to common subject matter. The Patent Office even states:

There is no requirement that the written description and any drawings filed in a provisional application and a later-filed non-provisional application be identical, however, the later-filed non-provisional application is only entitled to the benefit of the common subject matter disclosed in the corresponding non-provisional application filed not later than 12 months after the provisional application filing date.

The portion of the present application that has common subject matter with the provisional application is entitled to the benefit of the provisional application. See *New Railhead Manufacturing, LLC v. Vermeer Manufacturing Co.*, 298 F.3d 1290, 63 USPQ2d 1843 (Fed. Cir. 2002). The present application as filed complies with the first paragraph of 35 U.S.C. 112 and is fully supported by PCT application number PCT/US04/23866 in which the present application also claims priority. Any portion of the present application that does not have common subject matter with the provisional application is entitled to the filing date of the PCT application. It is therefore respectfully requested that this objection be withdrawn.

Objection to Drawings

The drawings have been objected to as reference number 708 is not mentioned in the specification. The Examiner is thanked for pointing out this missing reference number. The paragraph beginning at page 7, line 18 has been amended to add the missing reference to reference number 708. As a result, the amended sentence "As torque is applied to the shaft 704 as represented by arrows 706, 708, the magnetic response of the band 702 changes" now

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reads correctly with the "arrows" referring to a plurality of arrows instead of one arrow. It is therefore respectfully requested that the objection to the drawings be withdrawn.

Objection to Disclosure

The Office has objected to the definition used for a transition metal. In the objection, the Office states "While applicants can be their own lexicographer, they cannot define a term repugnant to its chemical definition." It is respectfully submitted that the above statement last appeared in the 8th edition of the M.P.E.P. dated August 2001, which states:

Applicant may be his or her own lexicographer as long as the meaning assigned to the term is not repugnant to the term's well known usage. *In re Hill*, 161 F.2d 367, 73 USPQ 482 (CCPA 1947). Any special meaning assigned to a term "must be sufficiently clear in the specification that any departure from common usage would be so understood by a person of experience in the field of the invention." *Multiform Desiccants Inc. v. Medzam Ltd.*, 133 F.3d 1473, 1477, 45 USPQ2d 1429, 1432 (Fed. Cir. 1998).

It is respectfully submitted that the Office is improperly using outdated versions of the M.P.E.P. in rejecting claims with caselaw from 1947. The most recent version of the M.P.E.P. has been updated with more recent caselaw and it states:

An applicant is entitled to be his or her own lexicographer and may rebut the presumption that claim terms are to be given their ordinary and customary meaning by clearly setting forth a definition of the term that is different from its ordinary and customary meaning(s). See *In re Paulsen*, 30 F.3d 1475, 1480, 31 USPQ2d 1671, 1674 (Fed. Cir. 1994) (inventor may define specific terms used to describe invention, but must do so "with reasonable clarity, deliberateness, and precision" and, if done, must "'set out his uncommon definition in some manner within the patent disclosure' so as to give one of ordinary skill in the art notice of the change" in meaning) (quoting *Intellicall, Inc. v. Phonometrics, Inc.*, 952 F.2d 1384, 1387-88, 21 USPQ2d 1383, 1386 (Fed. Cir. 1992)). Where an explicit definition is provided by the applicant for a term, that definition will control interpretation of the term as it is used in the claim. *Toro Co. v. White Consolidated Industries Inc.*, 199 F.3d 1295, 1301, 53 USPQ2d 1065, 1069 (Fed. Cir. 1999) (meaning of words used in a claim is not construed in a "lexicographic vacuum, but in the context of the specification and drawings"). Any special meaning assigned to a term "must be sufficiently clear in the specification that any departure from common usage would be so understood by a person of experience in the field of the invention." *Multiform Desiccants Inc. v. Medzam Ltd.*, 133 F.3d 1473, 1477, 45 USPQ2d 1429, 1432 (Fed.

Cir. 1998). See also *Process Control Corp. v. HydReclaim Corp.*, 190 F.3d 1350, 1357, 52 USPQ2d 1029, 1033 (Fed. Cir. 1999) and MPEP § 2173.05(a). The specification should also be relied on for more than just explicit lexicography or clear disavowal of claim scope to determine the meaning of a claim term when applicant acts as his or her own lexicographer; the meaning of a particular claim term may be defined by implication, that is, according to the usage of the term in the context in the specification. See *Phillips v. AWH Corp.*, 415 F.3d 1303, 75 USPQ2d 1321 (Fed. Cir. 2005) (en banc); and *Vitronics Corp. v. Conceptor Inc.*, 90 F.3d 1576, 1583, 39 USPQ2d 1573, 1577 (Fed. Cir. 1996). Compare *Merck & Co., Inc. v. Teva Pharms. USA, Inc.*, 395 F.3d 1364, 1370, 73 USPQ2d 1641, 1646 (Fed. Cir. 2005), where the court held that patentee failed to redefine the ordinary meaning of "about" to mean "exactly" in clear enough terms to justify the counterintuitive definition of "about." ("When a patentee acts as his own lexicographer in redefining the meaning of particular claim terms away from their ordinary meaning, he must clearly express that intent in the written description.").

In the present application, it is respectfully submitted that the term "transition metal" has been clearly defined in the specification to include aluminum. For example, it is stated at page 2, line 33 that:

The cobalt ferrite is doped with manganese (Mn) (or other transition elements such as chromium Cr, zinc Zn, aluminium Al, or copper Cu or mixtures thereof) by substituting Mn (or Cr, Zn, Al, or Cu or mixtures thereof) for iron or cobalt to form manganese-substituted cobalt ferrite (or other transition metal-substituted cobalt ferrite) that provides mechanical properties that make the substituted cobalt ferrite material effective for use as sensors and actuators. The Mn (or Cr, Zn, Al, or Cu or mixtures thereof) lowers the Curie temperature of the material while maintaining a suitable magnetostriction for stress sensing applications.

Similarly, page 8, lines 28-29 state: "Transition metal-substituted cobalt ferrite using Mn, Cr, Zn, Al, or Cu or mixtures thereof, could also give the desired material properties." Page 8, line 35 to page 9, line 2 state: "Transition metal-substituted cobalt ferrite using Cr, Zn, Al, or Cu or mixtures thereof, with or without Mn could also allow the material properties to be optimized for use as stress sensors over a range of operational temperatures." It is respectfully submitted that the "transition metal" term used to describe Al in addition to the traditional transition metals has been set forth with reasonable clarity, deliberateness, and

precision within the present specification so as to give one of ordinary skill in the art notice of the change in meaning. However, in accordance with the principles of compact prosecution that the Office articulates, the specification has been amended to place this application in condition for allowance. It is therefore respectfully requested that the amendment to the specification be approved and this objection to the disclosure be withdrawn. In the event that the Office maintains this objection, it is respectfully suggested that, in the interests of compact prosecution, the Examiner call Applicants' attorney to discuss an amendment to the specification.

Objection to Specification:

The specification has been objected to as failing to provide proper antecedent basis for the claimed subject matter. The Office Action states that the subject matter of claim 5 and the relative amounts of silver and nickel in claim 11 are not taught in the specification.

It is respectfully submitted that the subject matter of claim 5 is shown in FIG. 6 and the subject matter of claim 11 is described in the paragraph beginning at page 7, line 1. The specification has been amended to clearly provide proper antecedent basis for the claimed subject matter of claims 5 and 11. No new matter has been added because claims 5 and 11 are part of the specification as filed. It is therefore respectfully requested that this objection to the specification be withdrawn.

Objection to claims 6, 10, and 11 under 37 CFR 1.75(c)

Claim 6 has been objected to under 37 CFR 1.75(c) as being of proper independent form for failing to further limit the subject matter of a previous claim. Claim 6 has been amended to be in independent form. It is therefore respectfully requested that this objection be withdrawn.

Claims 10 and 11 have been objected to under 37 CFR 1.75(c) as being of proper independent form for failing to further limit the subject matter of a previous claim. Claim 10 has been amended to be in independent form. It is therefore respectfully requested that this objection be withdrawn. The Office states that claim 1 is directed to the process of producing a sintered metal substituted cobalt ferrite where there is no binder and that claim 10 is broader as a result of adding the step of adding a metallic binder to the mixed powder prior to the step of remilling the mixed powder. It is respectfully submitted that the Office is adding the limitation of having no binder to claim 1 that is not present in claim 1. Adding a metallic binder improves the stability of the composite during sintering and/or oxidative stability of the resulting product. As such the step of adding the metallic binder to the mixed powder is believed to be a

proper dependent claim as it adds an additional feature to independent claim 1. It is therefore respectfully requested that the objection to claims 10 and 11 be withdrawn.

Claim Rejections under 35 USC § 112, 1st Paragraph

Claim 6 has been rejected under 35 U.S.C. 112, first paragraph as failing to comply with the written description. The originally filed claims such as claim 6 are part of the specification. It is believed that the specification supports this claim. For example, page 2, line 32 to page 3, line 2 states that the cobalt ferrite is doped with manganese (Mn) or other transition elements such as Cr, Zn, etc. for iron or cobalt to form manganese-substituted cobalt ferrite (or other transition metal-substituted cobalt ferrite). However, in accordance with the principles of compact prosecution that the Office articulates, the specification has been amended to place the application in condition for allowance. It is therefore respectfully requested that this rejection under 35 U.S.C. 112, first paragraph be withdrawn.

Claim Rejections under 35 USC § 112, 2nd Paragraph

Claims 1 and 6-12 are rejected under 35 U.S.C. 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention.

With respect to claim 6, the Office Action states that claim 6 is indefinite since claim 6 is broader in scope than claim 1. Claim 6 has been amended to be in independent form. It is therefore respectfully requested that this rejection be withdrawn.

With respect to claims 1 and 7-9, the Office Action states that claims 1 and 7-9 are indefinite since it defines aluminum as a transition metal. Claims 1 and 7-9 have been amended to remove the feature of aluminum in the claims. It is therefore respectfully requested that this rejection be withdrawn.

With respect to claim 12, claim 12 has been amended in part by the manner kindly suggested by the Examiner. It is therefore respectfully requested that this rejection be withdrawn.

Extension of Time and Fee Deficiency

Applicant(s) believes/believe that no extension of time is required. However, this conditional petition is being made to provide for the possibility that Applicant(s) has/have inadvertently overlooked the need for a petition and fee for extension of time. If any additional fee is required, or any overpayment is made, in connection with this communication please charge or credit deposit account No. 50-3505.

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Conclusion

The application is considered in good and proper form for allowance, and the Examiner is respectfully requested to pass this application to issue. The absence of additional patentability arguments should not be construed as either a disclaimer of such arguments or that such arguments are not believed to be meritorious. If, in the opinion of the Examiner, a telephone conference would expedite the prosecution of the subject application, the Examiner is invited to call the undersigned attorney.

Respectfully submitted,

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